

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

JOHANNES C. AUWENS ET AL

PHN 17,172A

Serial No.

Filed: CONCURRENTLY

Title: METHOD AND DEVICE FOR RECORDING REAL-TIME INFORMATION

Commissioner for Patents

Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to calculation of the filing fee and examination, please amend the above-identified application as follows. A marked up copy of the claims is included in an appendix following this amendment for the Examiners convenience.

IN THE CLAIMS

Please amend the claims as follows:

1. (amended) A method comprising the steps of:

providing real-time video information and control information related thereto, the real-time video information being subdivided into cells, the cells being independently playable portions of the video information, and the control information including playback parameters for reproducing sequences of the cells;

selecting a starting point within a recording area of an optical record carrier, the starting point being after and

separated from the beginning of the recording area for creating a free area between the beginning of the recording area and the starting point;

recording the real-time information at positioned after the starting point according to a recording format; and

recording the control information in the free area according to the recording format.

2. (amended) The method of claim 1, wherein:

the recording format requires a variable area for the control information depending on variations of the playback parameters; and

the free area is smaller than the variable area maximally required to accommodate all possible variations of the playback parameters.

3. (amended) The method of claim 1, wherein the recording format is the DVD format.

4. (amended) A video recording device comprising:

means for selecting a starting point within a recording area of an optical record carrier, the starting point being after and separated from the beginning of the recording area for creating a free area between the beginning of the recording area and the starting point; and

means for controlling the recording of real-time video information and control information related thereto in the recording area arranged according to a recording format, the video information being divided into cells, the cells being independently payable portions of the video information, the control information including playback parameters for reproducing sequences of the cells, the recording including:

recording the real-time information from the starting point;  
and

recording the control information in the free area.

5. (amended) The recording device of claim 4, wherein, the recording format requires a variable area for the control information depending on variations of the playback parameters; and the free area is smaller than the variable area maximally required to accommodate all possible variations of the playback parameters.

6. (amended) The recording device of claim 5, wherein the recording means restrict the allowed variations of at least one playback parameter or combination of playback parameters so that the control information fits within the free area.

7. (amended) The recording device of claim 4, wherein the recording format is the DVD format.

8. (amended) The recording device of claim 7, wherein the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters.

9. (amended) The recording device of claim 4, wherein the recording means record elements of the control information on the record carrier intermitted at times with recording the real-time information.

Cancel claim 10

Please add the following new claims:

11. The method of claim 2, wherein the allowed variations of at least one playback parameter or combination of playback parameters are restricted so that the control information fits within the free area.
12. The method of claim 3, wherein the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters.
13. The method of claim 1, wherein elements of the control information is recorded on the record carrier intermitted at times with recording the real-time information.
14. The method of claim 1, further comprising the step of:
  - receiving real-time video information;
  - subdividing the real-time information into independently reproducible cells of video information; and
  - generating control information including playback parameters for reproducing sequences of the cells.

15. The method of claim 1, wherein at least a portion of the control information is recorded in the free area subsequent in time to recording the related real-time video information.

16. The recording device of claim 4, further comprising:  
means for subdividing the real-time information into independently reproducible cells of video information; and  
means for generating control information including playback parameters for reproducing sequences of the cells.

17. The recording device of claim 4, wherein at least a portion of the control information is recorded in the free area subsequent in time to recording the related real-time video information.

18. A video playing device comprising:  
means for determining a starting point within a recording area of an optical record carrier, the starting point being after and separated from the beginning of the recording area for defining a free area between the beginning of the recording area and the starting point; and

means for controlling the reproducing of real-time video information from real-time video information recorded in the recording area at positions after the starting point and control information related to the real-time video information recorded in the recording area at positions before the starting point, the

real-time video information and related control information being arranged according to a recording format, the video information being divided into cells, the cells being independently playable portions of the video information, the control information including playback parameters for reproducing sequences of the cells.

19. The reproducing device of claim 18, wherein the recording format is the DVD format.

20. The device of claim 19, wherein the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters.

21. The method of claim 1, wherein:

the recording format requires a variable area for the control information depending on variations of the playback parameters; and the free area is smaller than the variable area maximally required to accommodate all possible variations of the playback parameters the allowed variations of at least one playback parameter or combination of playback parameters are restricted so that the control information fits within the free area;

the recording format is the DVD format;

the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters;

elements of the control information is recorded on the record carrier intermitted at times with recording the real-time information;

the method further comprises the step of: receiving real-time video information; subdividing the real-time information into independently reproducible cells of video information; and generating control information including playback parameters for reproducing sequences of the cells;

at least a portion of the control information is recorded in the free area subsequent in time to recording the related real-time video information.

22. The recording device of claim 4, wherein:

the recording format requires a variable area for the control information depending on variations of the playback parameters; and the free area is smaller than the variable area maximally required to accommodate all possible variations of the playback parameters;

the recording means restrict the allowed variations of at least one playback parameter or combination of playback parameters so that the control information fits within the free area;

the recording format is the DVD format;

the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters;

the recording means record elements of the control information on the record carrier intermitted at times with recording the real-time information;

means for subdividing the real-time information into independently reproducible cells of video information; and

means for generating control information including playback parameters for reproducing sequences of the cells;

at least a portion of the control information is recorded in the free area subsequent in time to recording the related real-time video information.

23. The reproducing device of claim 18, wherein:

the recording format is the DVD format; and

wherein the free area accommodates VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area accommodates a VOBS containing a menu constituting the playback parameters.

24. A video recorder comprising:

an optical write head for writing information from an optical video disk;

a head positioner for controlling the position of the optical write head;

a drive for rotating the optical video disk in relation to the write head; and

a controller including:

means for selecting a starting point within a recording area of the optical disk, the starting point being after and separated from the beginning of the recording area for creating a free area between the beginning of the recording area and the starting point; and

means for controlling the read head and positioner for recording of real-time video information and control information related thereto in the recording area arranged according to a recording format, the video information being divided into cells, the cells being independently playable portions of the video information, the control information including playback parameters for reproducing sequences of the cells, the recording including:

recording the real-time information from the starting point;

and

recording the control information in the free area.

25. A video player comprising:

an optical read head for reading information from an optical video disk;

a head positioner for controlling the position of the read head;

a drive for rotating the optical video disk in relation to the read head; and

a controller including:

means for determining a starting point within a recording area of the optical disk, the starting point being after and separated from the beginning of the recording area for defining a free area between the beginning of the recording area and the starting point; and

means for controlling the write head and the head positioner for reproducing real-time video information from real-time video information recorded in the recording area at positions after the starting point and control information related to the real-time video information recorded in the recording area at positions before the starting point, the real-time video information and related control information being arranged according to a recording format, the video information being divided into cells, the cells being independently playable portions of the video information, the control information including playback parameters for reproducing sequences of the cells.

REMARKS

The above amendments are submitted to place this application in proper U.S. format. Entry of the amendment and an early action on the merits are solicited.

Respectfully submitted,

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APPENDIX - Mark-Up Of Amended Portions Of The Specification

1. A method comprising the steps of: Method of recording providing real-time video information and control information related thereto in a recording area on a record carrier arranged according to a recording format, in which method the real-time video information is being subdivided into cells, the cells being independently playable portions of the video information, and in which the control information including playback parameters for reproducing sequences of the cells; are included in the control information, characterized in that the method comprises the steps of first

selecting a starting point within the a recording area of an optical record carrier, the starting point being after and separated different from the beginning of the recording area for creating a free area between the beginning of the recording area and the starting point;, —thereafter

recording the real-time information from at positioned after the starting point according to a recording format;, and —

recording the control information in said the free area according to the recording format.

2. The method of Method as claimed in claim 1, wherein: — while the recording format requires a variable area for the control information in dependence depending on of variations of the playback parameters; and —

the free area is created smaller than the variable area maximally required to accommodate all possible variations of the playback parameters.

3. The method of claim 1 Method as claimed in any one of the claims 1, wherein the recording format is the DVD format.

4. A video recording device comprising: Device for recording real time information and control information related thereto in a recording area on a record carrier arranged according to a recording format, the device comprising recording means arranged for subdividing the real time information into cells and for including playback parameters in the control information for reproducing sequences of the cells, characterized in that the recording means are arranged for first

means for selecting a starting point within the a recording area of an optical record carrier, the starting point being after and separated different from the beginning of the recording area for creating a free area between the beginning of the recording area and the starting point; and, —thereafter

means for controlling the recording of real-time video information and control information related thereto in the recording area arranged according to a recording format, the video information being divided into cells, the cells being independently playable portions of the video information, the control information including playback parameters for reproducing sequences of the cells, the recording including:

recording the real-time information from the starting point; and —

recording the control information in said the free area.

5. Device as claimed in The recording device of claim 4, wherein, while the recording format requires a variable area for the control information in dependence of depending on variations of the playback parameters; and, the recording means are arranged for

creating the free area is smaller than the variable area maximally required to accommodate all possible variations of the playback parameters.

6. Device as claimed in The recording device of claim 5, wherein the recording means are arranged for creating the free area by restricting restrict the allowed variations of at least one playback parameter or combination of playback parameters so that the control information fits within the free area.

7. Device as claimed in The recording device of claim 4, wherein the recording format is the DVD format.

8. Device as claimed in The recording device of claim 7, wherein the free area is created to accommodate VMGI, VMGI\_BUP, VTSI and VTSI\_BUP and/or, while the recording area is intended for recording VOBS, the free area is created to accommodate a VOBS containing a menu constituting said the playback parameters.

9. Device as claimed in The recording device of claim 4 any of the claims 4 to 8, wherein the recording means are arranged for recording elements of the control information on the record carrier intermittent at times with during recording the real-time information.